

## User's Guide

# D0109MT-25-1101

# VFD- **RoHS Compliant**

(Vacuum Fluorescent Display Module)

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# Vacuum Fluorescent Display Specification

PART NUMBER: D0109MT-25-1101

FEATURES: 9 Digits – Seven Segmented, with custom segments, Decimals + Apostrophe

APPLICATION: Character Display- (7-Seg) - Scales

RATINGS: Below

Outer Dimensions	Panel Length	P.L.	112.0	mm	
	Panel Height	P.H.	25.0	mm	
	Panel Thickness	P.T.	6.8	mm	
Leads	Lead Pitch	L.P.	2.54	mm	
	Lead Out	-	SIL		
Character Size	Character Height	C.H.	9.7	mm	
	Character Width	C.W.	-	mm	
Item	Symbol	Min.	Recommended	Max.	Unit
Filament Voltage	Ef	3.9	4.3	4.7	Vac
Peak Grid Voltage	ec	-	25.0	30.0	Vp-p
Peak Anode Voltage	eb	-	25.0	30.0	Vp-p
Cut-off Bias	Ek	-	0	-	Vdc
Duty Cycle	Du	-	1/15	-	-
Pulse Width	tp	-	100	-	uS
Operating Temperature	Topr	-40	-	+ 85	C
Storage Temperature	Tstg	-50	-	+ 95	C
Color of Illumination	Green				

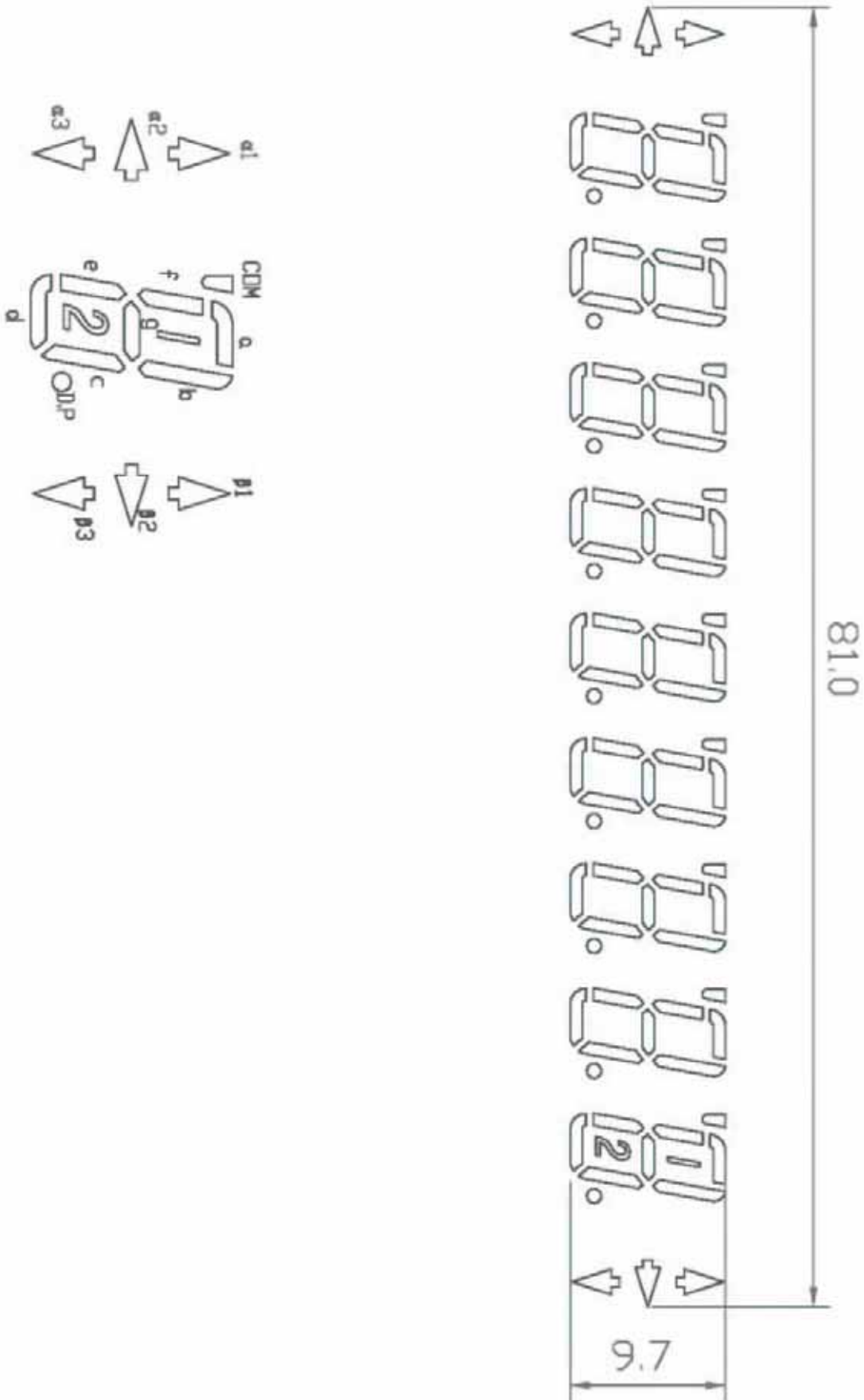
**Electrical  
Characteristics**

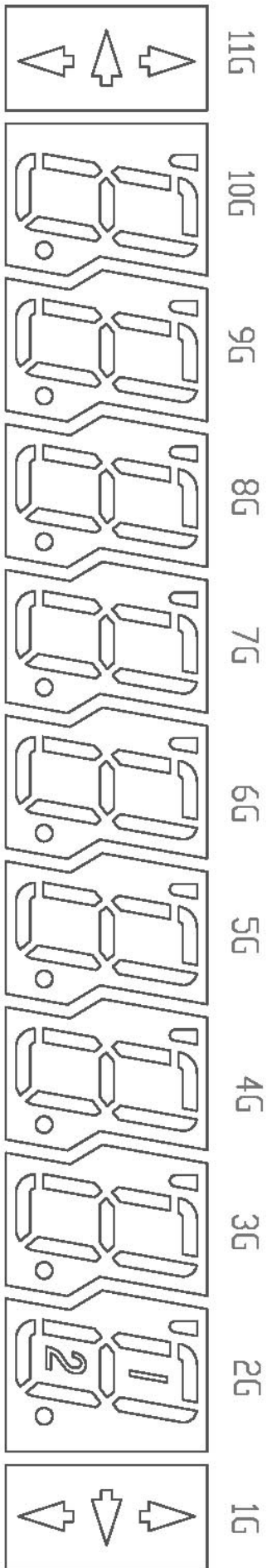
Item	Symbol	Test Condition	Min.	Typical	Max.	Unit
<b>Filament Current</b>	if	Ef = 4.3 Vac	70.0	78.0	86.0	mAac
	-	eb = ec = 0	-	-	-	-
<b>Anode Current</b>	ib / 1~11G	Ef = 4.3 Vac	-	4.0	8.0	mAp-p
	-	eb = 25.0 Vp-p	-	-	-	-
	-	ec = 25.0 Vp-p	-	-	-	-
	-	Du = 1/15	-	-	-	-
	-	tp = 100uS	-	-	-	-
<b>Grid Current</b>	ic / 1~11G	( All segs are ON )	-	5.0	10.0	mAp-p
	-		-	-	-	-
	-		-	-	-	-
	-		-	-	-	-
	-		-	-	-	-
<b>Luminance</b>	L(G)		350	700	-	cd/m <sup>2</sup>
	-		(102)	(204)		fL
<b>Luminance Ratio</b>	Lmin/Lmax		50	-	-	%
<b>Grid Cut-off Voltage</b>	Ecco	Ef = 4.3 Vac Eb = 25.0 Vdc	-4.5	-	-	Vdc
<b>Anode Cut-off Voltage</b>	Ebco	Ef = 4.3 Vac ec = 25.0 Vp-p Du = 1/15 Tp = 100uS	-4.5	-	-	Vdc

**DRIVE MODE: Dynamic State**



2: Grid Assignment:





## 4: Anode Connection:

	1G	2G	3G	4G	5G	6G	7G	8G	9G	10G	11G
P1											<b>a1</b>
P2											<b>a2</b>
P3											<b>a3</b>
P4		g	g	g	g	g	g	g	g	g	
P5		f	f	f	f	f	f	f	f	f	
P6		e	e	e	e	e	e	e	e	e	
P7		d	d	d	d	d	d	d	d	d	
P8		D.P	D.P	D.P	D.P	D.P	D.P	D.P	D.P	D.P	
P9		c	c	c	c	c	c	c	c	c	
P10		b	b	b	b	b	b	b	b	b	
P11		a	a	a	a	a	a	a	a	a	
P12		COM	COM	COM	COM	COM	COM	COM	COM	COM	
P13		1 2									
P14	<b>β3</b>										
P15	<b>β2</b>										
P16	<b>β1</b>										